Dell™ D2201R monitor

User Manual

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Model: D2201Rc

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Before operating the monitor, please read this manual thoroughly. This manual should be retained for future reference.

FCC Class B Radio Frequency Interference Statement
WARNING: (FOR FCC CERTIFIED MODELS)

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

NOTICE:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibilities of the user to correct such interference.

WARNING:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

Precautions

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable cart, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightening storm or when it will not be used for long period of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor by yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- The wall socket shall be installed near the equipment and shall be easily accessible.

Special Notes on LCD Monitors

The following symptoms are normal with LCD monitor and do not indicate a problem.

NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the power switch and then turn it on again to make sure the flicker disappears.
- You may find a little uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.
- When the screen becomes black or flashing, or cannot illuminate any more, contact your dealer or service center to replace parts. Do not attempt repair the screen on your own.

Before You Operate The Monitor

Features

- 21.5” (546.86mm) Wide ScreenTFT Color LCD Monitor
- Crisp, Clear Display for Windows
- Recommended Resolutions: 1920×1080@60Hz
- Ergonomic Design
- Space Saving, Compact Case Design

Packing List

The product package should include the following items:

1. LCD Monitor
2. Owner's Manual
3. Power Cable
4. Signal Cable

Installation Instructions

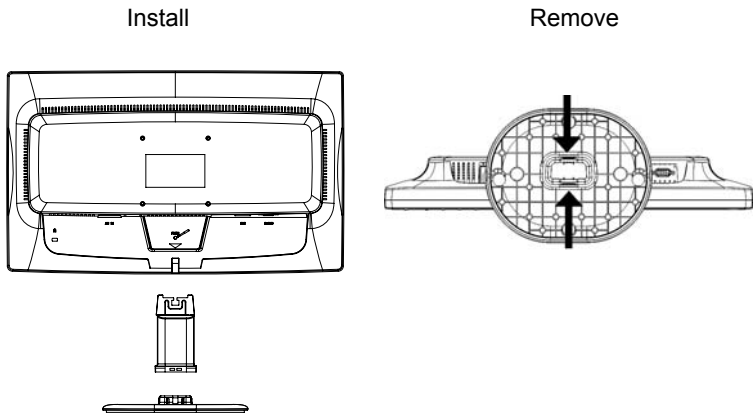


Figure 1 Installing and Removing the Base

POWER CORD

Power Source:

1. Ensure that the power cord is the correct type required in your area.
2. This LCD monitor has an external universal power supply that allows operation in either 100/120V AC or 220/240V AC voltage area (no user adjustment is required).
3. Connect the AC-power cord into your LCD monitor's power input socket, The AC-power cord may be connected to either a wall power outlet or the power outlet socket on your PC, depending on the type of power cord supplied with your LCD monitor.

Controls And Connectors

Connecting the Signal Cable: Plug the Signal Cable one end to LCD monitor's "DSUB-Input" socket , the other end to the computer's VGA port and tighten the two screws on the cable connector.

Connecting the DVI Cable : Connect one end of the 24-pin DVI cable to the back of the monitor and connect the other end to the computer's DVI port.

Connecting the Power Cord: Connect one end of the AC power cord to the LCD monitor's AC input socket, and the other end to wall outlet.

Caution: *If the AC outlet is not grounded (with three holes), install the proper grounding adapter (not supplied).*

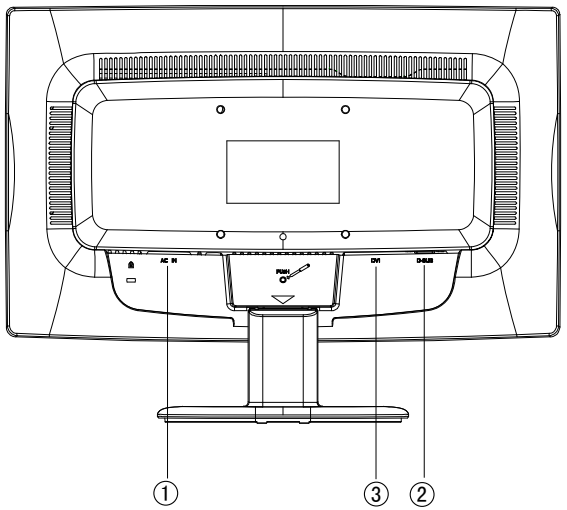


Figure 2 Connecting Cables

1.	Power Cable
2.	Signal Cable
3.	DVI Cable (option)

Adjusting The Viewing Angle

- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.
- Hold the stand so you do not topple the monitor when you change the monitor's angle.
- You are able to adjust the monitor's angle from -5° to 20°.

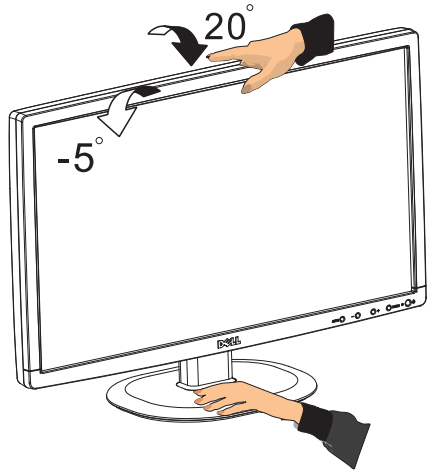


Figure 3

NOTES

- Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.
- Careful attention is required not to catch your fingers or hands when you change the angle.

Operating Instructions

General Instructions

Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor (See Figure 4). By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.

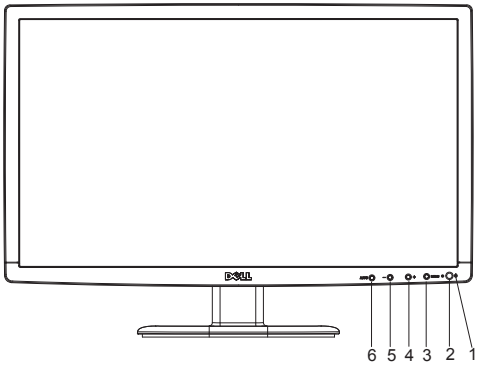


Figure 4 External Control Button

1.	Power button
2	Power Indicator
3.	MENU
4.	Image Ratio(+)
5.	ECO Hotkey(-)
6.	Auto/Source

Front Panel Control

- **Power Button:**
  Press this button to switch ON/OFF of monitor's power.

- **Power Indicator:**
  Blue — Power On mode.
  Orange — Power saving mode.

- **MENU/ENTER :**
  Active OSD menu or function adjust confirm or Exit OSD menu when in Contrast/Brightness OSD status.

- **ECO Hotkey(-)**
  Activates the ECO control when the OSD is off or navigate through adjustment icons when OSD is on or adjust a function when function is activated.

- **Image Ratio(+) :**
  Select monitor display mode. Press Image Ratio(+) button to change wide mode or 4:3 mode.

- **Auto/Source:**
  1. When the OSD is off, press Auto/Source button continuously to select the input source showed in the message bar. Press Menu/Enter button to change to the selected source.
  2. Auto configure hot key: When the OSD is closed, press Auto/Source button continuously about 2 second to do auto configure.
  3. When OSD menu is in active status, this button will act as EXIT-KEY (EXIT OSD menu).

OSD Lock Function: To lock the OSD, press and hold the MENU button while the monitor is off and then press power button to turn the monitor on. To unlock the OSD - press and hold the MENU button while the monitor is off and then press power button to turn the monitor on.

NOTES

- Do not install the monitor in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.
- Save the original shipping carton and packing materials, as they will come in handy if you ever have to ship your monitor.
- For maximum protection, repackage y tillour monitor as it was originally packed at the factory.

- To keep the monitor looking new, clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always unplug the monitor before cleaning it.
- Do not scratch the screen with hard things, it may cause permanent damage.
- Don't leak liquid into monitor which will result in the damage of component.

How To Adjust A Setting

1. Press the MENU-button to activate the OSD window.
2. Press + or - to navigate through the functions. Once the desired function is highlighted, press the MENU-button to activate it. If the function selected has a sub-menu, press + or - again to navigate through the sub-menu functions. Once the desired function is highlighted, press MENU-button to activate it.
3. Press + or - to change the settings of the selected function.
4. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-3.

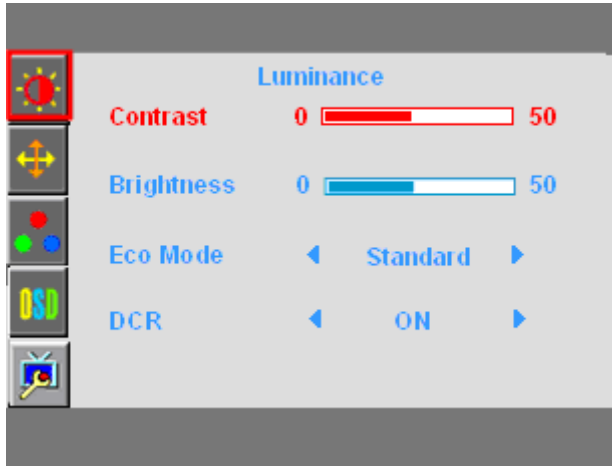


Figure 5 The OSD Message

Adjusting The Picture

The descriptions for function control LEDS

Main Menu Item	Main Menu Icon	Sub Menu Item	Sub Menu	Description
Luminance		Brightness		Backlight Adjustment
		Contrast		Contrast from Digital-register.
		Eco	Standard	Standard Mode
			Text	Text Mode
			Internet	Internet Mode
			Game	Game Mode
			Movie	Movie Mode
			Sports	Sports Mode
		DCR	Off	Disable dynamic contrast ratio
			On	Enable dynamic contrast ratio
Image Setup		Clock		Adjust picture Clock to reduce Vertical-Line noise.
		Phase		Adjust Picture Phase to reduce Horizontal-Line noise
		H.Position		Adjust the vertical position of the picture.
		V.Position		Adjust the horizontal position of the picture.
		Image Ratio		Enable monitor wide mode or 4:3 mode

Color Temp.		Warm		Recall Warm Color Temperature from EEPROM.
		Normal		Recall Normal Color Temperature from EEPROM.
		Cool		Recall Cool Color Temperature from EEPROM.
		sRGB		Recall SRGB Color Temperature from EEPROM.
		User	User-B	Blue Gain from Digital-register
			User-G	Green Gain Digital-register.
			User-R	Red Gain from Digital-register
OSD Setup		H.Position		Adjust the verticalposition of OSD
		V.Position		Adjust the horizontal position of OSD
		Timeout		Adjust the OSD Timeout
		Language		Select the OSD language
Extra		Input Select	D-SUB	Select Analog Sigal Source as Input
			DVI	Select Digital Sigal Source as Input
		DDC/CI		Turn ON/OFF DDC/CI Support
		Reset	yes or no	Reset the menu to default
		Information		Show the information of the main image and sub-image source

Plag And Play

Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.
The DDC2B is a bidirectional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.

THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL IF THERE IS NO VIDEO INPUT SIGNAL. IN ORDER FOR THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

USING THE RIGHT POWER CORD :

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.
Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.
Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

Technical Support (FAQ)

Problem	Possible Solution
Power LED is not on	*Check if the Power Switch is in the ON position
No Plug & Play	*Check if the PC system is Plug & Play compatible *Check if the video card is plug and play compatible *Check if the D-15 plug pin of Video Cable is bent
Picture is fuzzy	*Adjust the Contrast and Brightness Controls.
Picture bounces or a wave pattern is present in the picture	*Move electrical devices that may cause electrical interference.
The power LED is ON (orange) but there's no video or no picture.	*Computer Power Switch should be in the ON position. *Computer Video Card should be snugly seated in its slot. *Make sure monitor's video cable is properly connected to the computer. *Inspect monitor's video cable and make sure none of the pins are bent. *Make sure computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.
Missing one of the primary colors (RED, GREEN, or BLUE)	*Inspect the monitor's video cable and make sure that none of the pins are bent.
Screen image is not centered or sized properly.	*Adjust pixel frequency (CLOCK) and FOCUS or press hot-key (AUTO).
Picture has color defects (white does not look white)	*Adjust RGB color or select color temperature.
Poor brightness or contrast	*When the brightness of the screen lowers after being used for a certain period and the function of the display is affected, send it to our authorized service center for repair.
Horizontal or vertical disturbances on the screen	*Use windows® 95/98/2000/ME/XP shut-down mode Adjust CLOCK and FOCUS orperform hot- key (AUTO-key).

CLOCK (pixel frequency) controls the number of pixels scanned by one horizontal sweep. If the frequency is not correct, the screen shows vertical stripes and the picture has not correct width.

FOCUS adjusts the phase of the pixel clock signal. With a wrong phase adjustment the picture has horizontal disturbances in light picture.

For FOCUS and CLOCK adjustment use “dot-pattern” or win 95/98/2000/ME/XP shut-down mode pattern.

Error Message & Possible Solution

CABLE NOT CONNECTED :

1. Check that the signal-cable is properly connected. If the connector is loose, tighten the screws of the connector.
2. Check the signal-cable’s connection pins for damage.

Input Not Supported :

Your computer has been set to unsuitable display mode. Set the computer to display mode given in the following table.

Appendix

Specifications

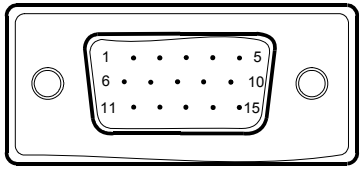
LCD Panel	Driving system	TFT Color LCD
	Size	546.86 mm(21.5")
	Pixel pitch	0.248(H) ×0.248mm (V)
Input	Video	R,G,B Analog Interface
		Digital Interface
	Separate Sync.	H/V TTL
	H-Frequency	31kHz – 67.5kHz
	V-Frequency	56-75Hz
Display Colors		16.7M Colors
Dot Clock		138.5MHz
Max. Resolution		1920x1080@60Hz
Plug & Play		VESA DDC2B™
Power Consumption	ON Mode	≤45W
	OFF Mode	≤1W
Input Connector		D-Sub 15pin& DVI-D 24pin (option)
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive& DVI-D
Power Source		100~240VAC,50/60Hz
Environmental Considerations		Operating Temp: 0° to 40°C Storage Temp.: -20° to 60°C Operating Humidity: 10% to 85%
Dimension		512.7(W)X366.1(H)X181.4(D)
Weight (N. W.)		4.25kg

External Controls:	Switch	• Power Button • Menu • Image Ratio(+) • ECO/- • Source/Auto
	Functions	• Contrast • Brightness • Phase • Clock • H. Position • V. Position • OSD setup • Language • Input Select • Information • (Warm)Color • (Cool)Color • sRGB • USER Color temperature • Reset • Exit
Power Consumption (Maximum)		45Watts
Regulatory Compliance		FCC, UL

Factory Preset Timing Table

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)
VGA	640×480 @60Hz	31.469	59.940
	640×480 @72Hz	37.861	72.809
	640×480 @75Hz	37.500	75.000
Dos-mode	720×400 @70Hz	31.469	70.087
SVGA	800×600 @56Hz	35.156	56.250
	800×600 @60Hz	37.879	60.317
	800×600 @72Hz	48.077	72.188
	800×600 @75Hz	46.875	75.000
XGA	1024×768 @60Hz	48.363	60.004
	1024×768 @70Hz	56.476	70.069
	1024×768 @75Hz	60.023	75.029
WXGA	1280x768@60Hz	45.000	60.000
WXGA+	1600x900@60Hz	60.000	60.000
Full HD	1920x1080@60Hz	66.587	59.934

Connector Pin Assignment



15-Pin Color Display Signal Cable

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	Red	9.	+5V
2.	Green	10.	Ground
3.	Blue	11.	Ground
4.	Ground	12.	DDC-Serial Data
5.	Detect Cable	13.	H-Sync
6.	R-Ground	14.	V-Sync
7.	G-Ground	15.	DDC-Serial Clock
8.	B-Ground		

24 - Pin Color Display Signal Cable(option)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	TMDS Data 2-	13.	TMDS Data 3+
2.	TMDS Data 2+	14.	+5V Power
3.	TMDS Data 2/4 Shield	15.	Ground(for+5V)
4.	TMDS Data 4-	16.	Hot Plug Detect
5.	TMDS Data 4+	17.	TMDS Data 0-
6.	DDC Clock	18.	TMDS Data 0+
7.	DDC Data	19.	TMDS Data 0/5 Shield
8.	N.C.	20.	TMDS Data 5-
9.	TMDS Data 1-	21.	TMDS Data 5+
10.	TMDS Data 1+	22.	TMDS Clock Shield
11.	TMDS Data 1/3 Shield	23.	TMDS Clock +
12.	TMDS Data 3-	24.	TMDS Clock -